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BULLFROG SNOT

by **Bill Cook**

Traction. No, not the overhead wire variety, I mean grip. Sand. It's what has been missing from N scale since the beginning. Without traction, we have toys; with traction, we have model railroads. We try to compensate by adding weights wherever we can hide them. Ah, but we also sometimes have traction tires. Those rubbery O-rings, an inherent genetic curse on N scale, which will wobble, rot away with age, and often pop off the drivers under load. (A problem with the beautiful new GS-4 and GG-1.) Good luck replacing them. Some manufacturers, such as Kato, graciously offer traction-tired drivers as owner installed extra-cost accessories for their USRA Mikado, and the same for Model Power. The traction driver bearing block shim fix to the Bachmann 4-8-2 USRA light Mountain transforms it from just a looker into a nice little freighter, if you have the stuff for this level of surgery. Generic traction driver 'kits' are available, but making it work without a wicked hop? Shrink tubing? Gosh, how do you install this stuff? You mean I have to disassemble valve gear or power trucks? Machine a groove in the drivers? Use a heat gun? Are you kidding me? Two-sided tape has been used with some success, by the skilled and very patient among us. Even the red goop used to dip tool handles has been suggested, but that's too thick and does not want to stick to metal drivers. Powered boxcars? OK, who makes 'em and how much? A power tender would be cool, but it isn't out there either and would be costly and a pain to adapt.

Follow the threads in on-line forums for our hobby and you'll see this issue come up frequently. Typically, it goes something like this: “I just laid down big green for a new 2-8-4, and it won't pull more than 9 cars! Help!” Yeah, I hear ya, buddy. Try getting the MP 4-4-0 teakettle to haul its own weight up a 2% grade, forget the passenger cars, or those cool monster Centuries that have

Photo 1 The proper sized drop of BULLFROG SNOT for N scale.

Photo 2 The basic BULLFROG SNOT work station.

to be run three together, because two just won't get it done for a decent sized coal train. Helix? Don't be silly. I built my layout with operation in mind, but I really just like to run long trains. Must we long runners be condemned to build layouts with track gradients no more severe than the N-Trak main line? Sigh. Are we cursed to trod this vast slippery wasteland forever?

Well, maybe not. Imagine a cost-effective universal traction improvement that installs in minutes (and can be removed with equal ease), without any risky, taxing schemes of disassembly or specialized tools, and is almost invisibly thin, yet will dramatically improve the pulling power of your locomotive roster. A product humorously named "BULLFROG SNOT" does exactly that. Of course, it's not really an extract from a protected magic amphibian with a sinus problem. It is a sophisticated, specially formulated room temperature curing, one-part "green" liquid plastic with unique properties that allow it to stick like snot to metal drivers and remain 'grippy' like a race car tire.

BULLFROG SNOT is great because: it is easily applied, and easily removed. Just a toothpick is all you'll need to install, and an Xacto knife to remove it; it's ready to go. No multi-part mixing. No witches brew of acetone, RTV, buffalo glue, snake oil, belt dressing, two-sided tape, shrink tubing, chicken bones, eye of newt, or dilithium crystals; no disassembly, no special tools, no surgical skills; it cures at room temp in moments; no baking; no nasty fumes. It's benign and friendly; it's easy to see your work, and it cures to virtually invisible; it is thin - only .0055" or less when cured; it's tough and durable and has a good service life; leaves no residue on the track, and no gunk in your engine and it is universal - works for any loco from any manufacturer in any scale.

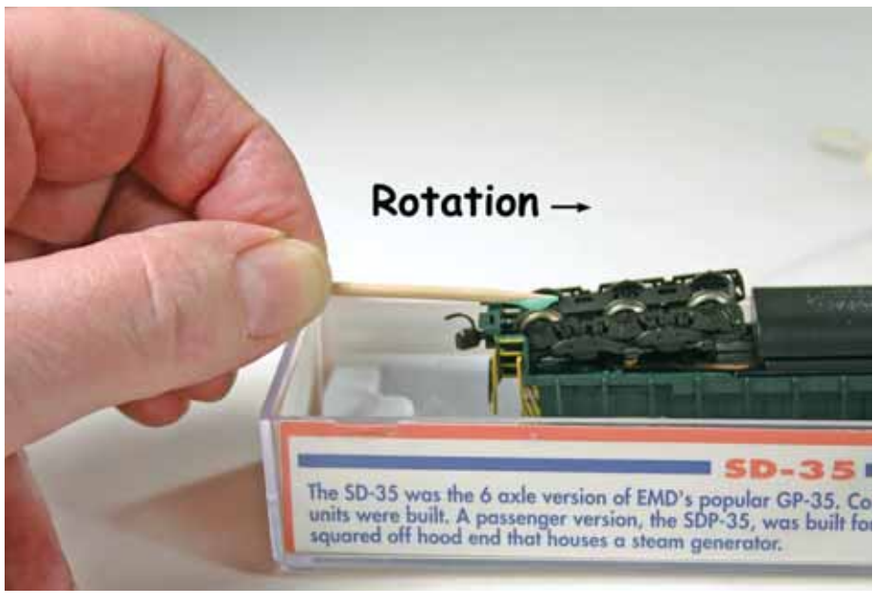

Photo 3 Installing BULLFROG SNOT.

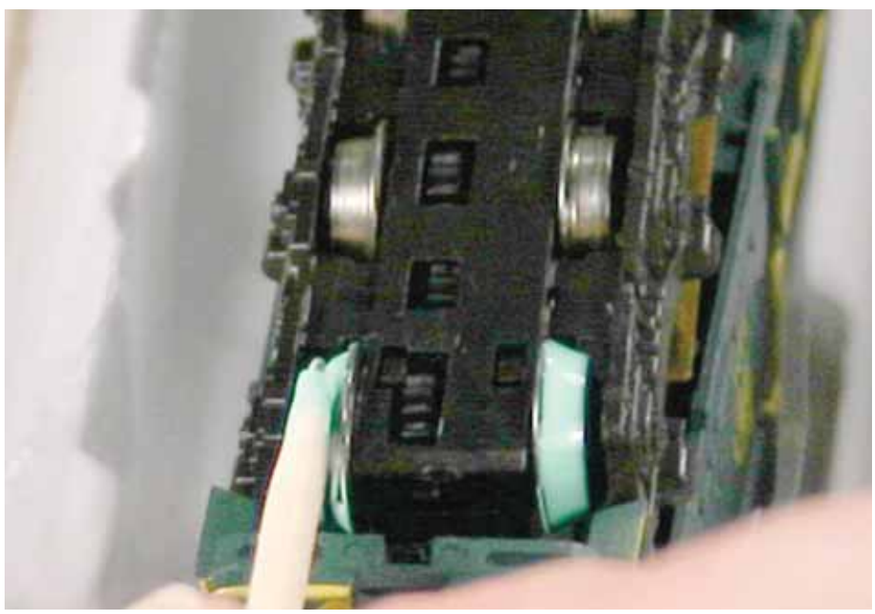

Photo 4 Installing BULLFROG SNOT on a GP-35.

About the only trick required for use of BULLFROG SNOT is the preparation. The drive wheels of the locomotive must be turning during installation, so you'll need a workstation to hold the patient belly up, and available DC power. The box your loco came in is an excellent candidate; it will cradle and protect all the fine details while your hands are otherwise occupied. Apply power, about 1/4 throttle or less to get the wheels turning at a moderately slow yard speed. Be sure to select wheels that are actual drivers, and not idlers or those only moved by valve gear for appearance purposes.

The best universal applicator tool is a round wooden toothpick, aligned parallel to the long dimension of the victim. Set the direction of power to rotate the wheels away from the point of the applicator. With a drop - not a blob - of BULLFROG SNOT on the tip of the toothpick, touch the rotating wheel and allow a bead to form, covering the full circumference. Excessive amounts will gum up your brake hangers and other gear, so apply sparingly, and resist the temptation to overdo things. Work the toothpick just enough as to cover the wheel with an even coat - it's an easy skill to acquire.

To prevent an out-of-round tire, let the locomotive continue to run as you watch the BULLFROG SNOT cure, maybe 10 minutes or so until the color is gone, then allow to fully cure for a few hours, overnight for best results. BULLFROG SNOT in its natural state is a slimy green color, and it goes on 'fat', is easy to see where it's been applied so you can check your work. In a few moments, the color all but disappears as it cures thin and tight and forms your new traction tire. Once scuffed with use, it's virtually invisible.

Yes, you will lose some electrical con-

tact, so expect to maybe do some tweaking and tuning. SNOTing one axle per locomotive is generally very sufficient. After curing, you can also trim BULLFROG SNOT from the flange area if desired, gaining a bit of electrical contact, but leaving a traction patch where the wheel meets the rails.

BULLFROG SNOT stays where you put it, and needs no grooves in the wheels. It can also be installed over existing traction tires to secure them in place and improve their grip.

Dramatic performance improvements were realized on the MP 4-4-0 by applying BULLFROG SNOT to both drivers. It now pulls 10 cars, mixed trains - including a track wiper car - up hill, and 35 hoppers on level track! On the Bachmann 2-6-6-2 - with those cool smoke box mounted dual air pumps and tiny drivers - application to two wheels per engine (four total) and you're soon watching a long coal drag chug by - I've run 40 loads/55 empties. The Life-Like 2-8-8-2 Mallet with a similar treatment is transformed into a genuine freighter, on pulse DC, easily pulling 75 cars on a level test track. At that point, the engine could do more, but the train was pulling apart. (The 2-8-8-2 has electrical tender pick-up which connects only to a lamp. Hardwire this direct to the engine and watch this baby creep with a long train!) It works on smaller diameter diesel wheels as well. Atlas's FM H-14-44 becomes a snappy commuter hauler, and the new RSD-4, hobbled with one idler axle per truck, gets the grunt a real Alco delivered. Shelf queens and roundhouse scenery get new lives. Most users report doubling the length of their trains and more.

Steamers have “independent suspensions” - axles floating in loose tolerance bearing blocks - and seem to benefit more from an additional traction tire. Diesels have tighter power trucks and therefore require a more selective application; the outer axles seem to work best. Experiment in stages to determine the best placement and quantity of traction tires for your particular loco. Like learning to paint, more is not necessarily better, and what does not work out is easily removed with no permanent alterations. You'll actually prefer engines without factory traction tires, because an application of BULLFROG SNOT works better.

BULLFROG SNOT, like any tire, will eventually wear out. With extensive use, it will glaze a bit and the grip diminishes. Removal is easy using a standard Xacto knife - use a sharp fresh blade. Apply power as during installation and use a 'lathe' action with optimum tool angle and speed to cut off the BULLFROG SNOT and re-tire as before.

Keep uncured BULLFROG SNOT from freezing and Kryptonite (self-explanatory).

Subjecting BULLFROG SNOT beyond its natural Mojavinal temp range prior to comfortable curing messes with its proprietary pesudoamphibianalferroequineprimordial pentagonalpolymeric structure. Freeze it and you get a slimy silly putty slug in a jar.

Heating it, well just don't (you don't want to know). Neither does it any good; something in the riveting DNA.

BULLFROG SNOT comes in a handy one-ounce bottle for $24.95 available at your favorite retailer and www.bullfrogsnot.com (join the blogs to report your results). One ounce contains 100s of SNOTy tires, enough to do your entire fleet several times over and plenty to share with your friends as well. Is this the “miracle cure” we've been hoping for? Is it a change we can believe in? It will change the way you run your trains. But then maybe it's Snot for you.

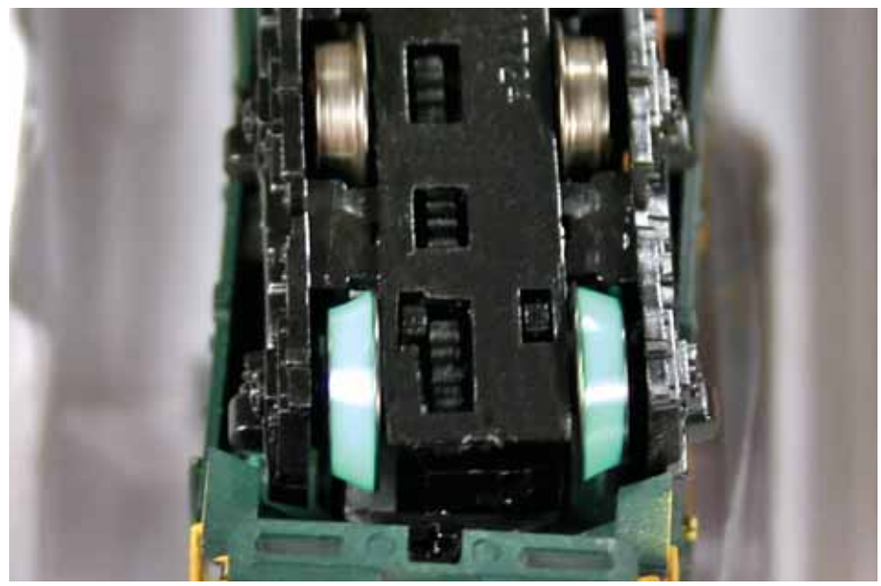

Photo 5 Freshly applied BULLFROG SNOT.

Photo 6 Cured BULLFROG SNOT, ready to go!